

Biotechnology

Curriculum Plan 2022-2023

Area of Concentration: J0

CTSO: HOSA

Program Courses

EMIS Course Code	Course Name	Grade	Is this course a CTAG?
072110	Principles and Practices of Biomed Tech	10	No
072120	Biochemistry of Health	11	No
072125	Biotech of Health and Disease	12	Yes
072130	Genetics of Disease	12	No

Industry Credentials/Certifications

Industry Credentials Offered	ODE Points Available	Completed during Grade
OSHA-10	1	10

College Credit Opportunities

Course Name	College	Credit Hours	Completed during Grade
CTBTC001 Biotechnology Principles	CTAG	3	11
BTN 1120 Laboratory Safety and Regulatory Compliance	Sinclair Community College	2	11
BIO 1107 Human Biology	Sinclair Community College	3	

Work-Based Learning Opportunities

On the job placement opportunities	
CTSO competitions	

Tasks

- Analyze operational or research data.
- Develop computer or online applications.
- Develop data analysis or data management procedures.
- Maintain current knowledge related to work activities.
- Enter information into databases or software programs.
- Search files, databases or reference materials to obtain needed information.
- Confer with coworkers to coordinate work activities.
- Prepare research or technical reports.
- Maintain operational records.
- Format digital documents, data, or images.
- Train personnel.

BIOTECHNOLOGY

Program of Study

Aligned with Sinclair – Biotechnology BTN.S.AAS

Secondary	9	English 9	Algebra I or Geometry	Physical Science	World History	PE/PE	Health/Career Exploration	Elective
	10	English 10	Geometry or Algebra II	Biology	U.S. History	Elective	Prin and Prac of Biomed Tech 072110	
	11	English 11	Algebra II or Pre-Calculus	Chemistry or Environmental Science	American Government	Elective	Biochemistry of Health 072120	
	12	English 12	Adv Math	Elective	Elective	Elective	Biotech of Health and Disease 072125	Genetics of Disease 072130

Post-Secondary	Fall Year 1	BIO 1107 Human Biology		BIO 1111 Gen Biology I AND BIO 1211 General Bio II OR BIO 1171 Prin of Bio I AND BIO 1272 Prin Bio II		SCC 1101 First year Experience		
	Spring Year 1	BTN 1110 Biotechnology & Bioethics	BTN 1120 Lab Safety & Regulatory Compliance	Select one: COM 2206 Interpersonal Comm COM 2211 Effective Public Speaking COM 2225 Small Group Comm		BIS 1120 Intro to Software Apps	BTN 1201 Biotech Careers OR BTN 2700 Biotech Internship	
	Summer Year 1	BTN 1140 Cell Culture		BTN 1130 Biological Reagents Preparation		CHE 1111 Intro to Chem OR CHE 1211 General Chem I		
	Fall Year 2	MAT 1470 College Algebra		ENG 1101 English Comp I		BTN 2210 Protein Purification & Analysis		Elective OT36: Arts & Humanities
	Spring Year 2	BTN 2220 Microbiology & Fermentation Methods		BTN 2230 Molecular Biology Tech		Elective OT36: Arts & Humanities		Elective OT36: Social & Behavioral Sciences

Key	Required Course	Recommended Elective Courses	High School Career-Technical Courses Bold =College Credit Opportunity
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Dayton Public Schools does not discriminate on the basis of race, color, national origin, sex, disability, or age for participation in any program or activity. Lack of English language proficiency will not be a barrier to admission and participation in career-technical education programs.